IN THE CLAIMS

Kindly amend the claims to read as follows:

1. (original) A method of making a compound semiconductor material act as a semimetal semiconductor, comprising the step of doping said material to a dopant density exceeding $1x10^{19}$ cm^{-3} while maintaining majority carrier mobility sufficient to keep the conductivity above 10,000 mhos.

2. (original) The method of claim 1 wherein the undoped form of said compound material exhibits an electronic affinity larger than 4.1 eV.

3. (original) The method of claim 1 wherein hyperdoping is utilized.

4. (original) The method of claim 1 wherein the doping is not spatially separated from the SMSC material.

5. (original) The method of claim 1 wherein said compound semiconductor material comprises an alloy of phosphorous.

6. (original) The method of claim 1 wherein said step of doping employs a growth temperature between 500 and 800 kelvins.

7. (original) The method of claim 6 wherein said step of doping utilizes molecular beam epitaxy.

8. (amended) The method of ~~step~~ **claim** 1 where the free carrier concentration exceeds $1x10^{19}$ cm^{-3}.

9. (amended) The method of ~~step~~ **claim** 1 where the free carrier concentration exceeds $2x10^{19}$ cm^{-3}.

10. (amended) The method of ~~step~~ **claim** 1 where the free carrier concentration exceeds $4x10^{19}$ cm^{-3}.

11. (amended) The method of ~~step~~ **claim** 1 where the free carrier concentration exceeds $8x10^{19}$ cm^{-3}.

12. (amended) The method of ~~step~~ **claim** 1 where said material is a bulk material.

13. (amended) The method of ~~step~~ **claim** 12 where said bulk material is at least 30 nm thick.

14. (amended) The method of ~~step~~ **claim** 12 where said bulk material is at least 50 nm thick.

15. (amended) The method of ~~step~~ claim 12 where said bulk material is at least 100 nm thick.

16. (original) A compound semiconductor material with conductivity above 10,000 mhos, and free carrier concentration above 10^{19} cm^{-3}.

17. (original) The material of claim 16 where said compound semiconductor material is a III-V compound semiconductor and contains indium.

18. (withdrawn) A microelectronic device including from a semimetal semiconductor.

19. (withdrawn) A microelectronic device in accordance with claim 18, wherein said device includes a rectifying contact between said semimetal semiconductor and a semiconductor.

20. (withdrawn) A microelectronic device in accordance with claim 18, wherein said device includes a high-conductivity channel formed from said semimetal semiconductor.

21. (new) A compound semiconductor material that acts as a semimetal semiconductor made by a process

comprising the step of doping said material to a dopant density exceeding $1x10^{19}$ cm^{-3} while maintaining majority carrier mobility sufficient to keep the conductivity above 10,000 mhos.

22. (new) A compound semiconductor material, as defined in claim 21, wherein said step of doping employs a growth temperature between 500 and 800 kelvins.

23. (new) A compound semiconductor material, as defined in claim 21, wherein said compound semiconductor material comprises a III-V compound semiconductor and contains indium.